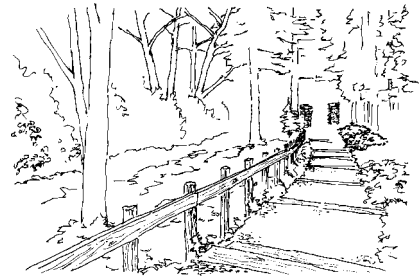


Plan view of road through Arlee showing street trees, curb bump outs, and crosswalks.

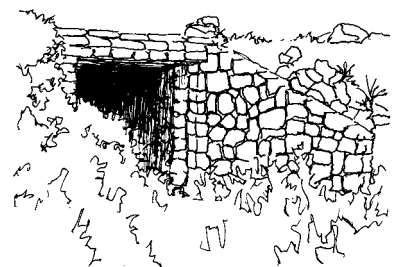


- street and reduce the distance pedestrians have to walk to cross the road.
- Construct paved shoulders along the majority of the road at a sufficient width to allow for bicycles to travel safely. Shoulder widths should comply with MDT standards.
- If a couplet is provided in Arlee for southbound traffic, restrict pedestrian access by not allowing sidewalks on either side of the couplet and by limiting crosswalks to selected areas at the north and south end of the couplet.
- South of Arlee, from North Couture Loop to Coombs Lane, provide a gravel or dirt pathway along west side of the road for multimodal access, including equestrian access.
- North of Arlee, from E Street to Oxford Lane, maintain the existing paved pathway along the east side of the road for pedestrian and bicycle usage.
- Construct sidewalks of concrete tinted to match the color of the surrounding ground in areas where visitor centers or interpretive facilities are to be developed and sidewalks are to be included.
- Construct trails and paths so they follow existing topography and work around trees, creeks, rocks, and other natural features. Avoid interrupting natural drainage patterns when designing and constructing trails and walkways. Where a swale or creek must be crossed, use a raised bridge structure to minimize potential impact.

Wildlife Crossing & Habitat

This section of the guidelines addresses issues related to the design, construction, maintenance, and monitoring of proposed wildlife crossings for US 93.

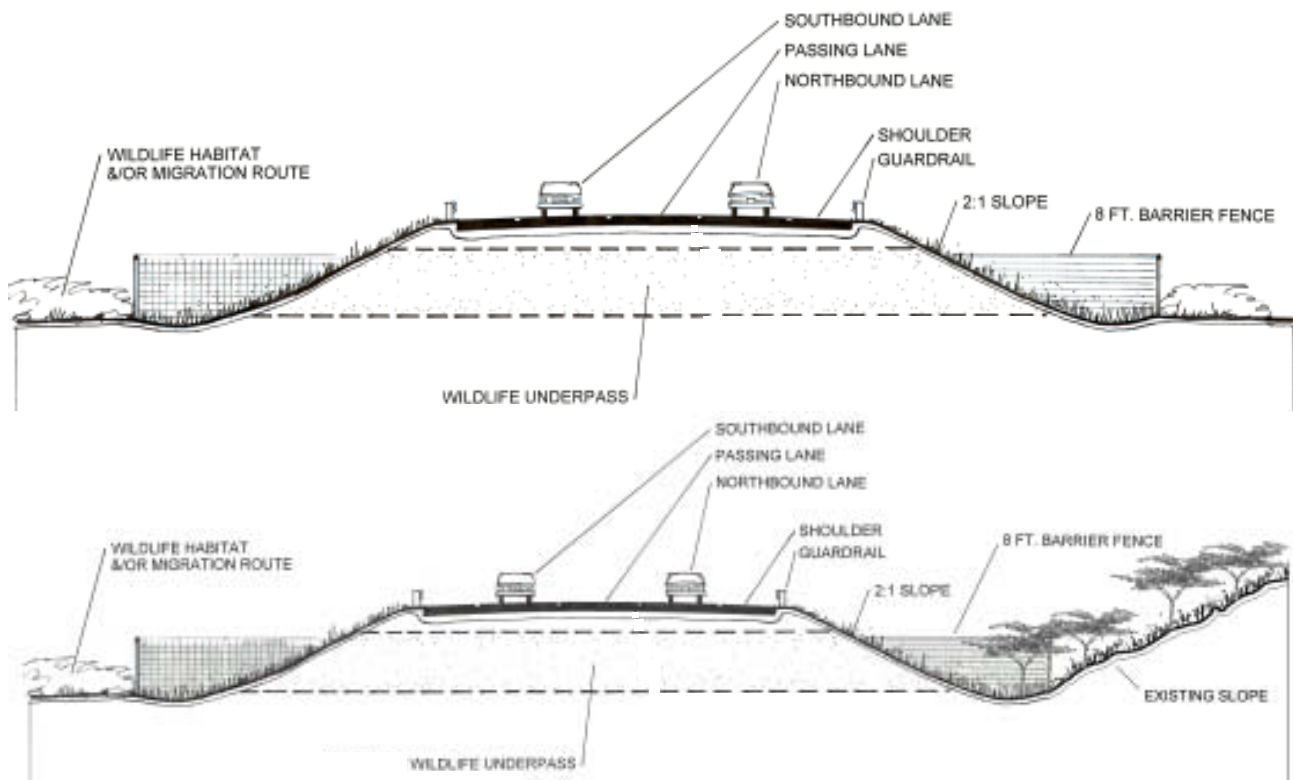
- Seek to have commercial, residential, and industrial development limited in areas adjacent to wildlife crossings.
- Refer to the US 93 Wildlife Crossing Workbook for recommendations on specific types, locations, sizes, and details of individual wildlife crossings. The wildlife crossings indicated are based upon currently available research and are intended primarily to conceptually convey the basic objective of each crossing. Many of the crossings are similar to structures used along the Trans-Canada Highway in Banff National Park.
- Determine the actual size, type of structure, and location during the design phase of the project. The total number of wildlife structures may vary depending upon analysis of specific site locations.
- Base sizes of crossings primarily on the minimum clearance required for



specific wildlife species. When multiple species are expected to use a particular crossing, design the crossing for the largest species that is expected to use a specific crossing.

- Restore vegetation along riparian zones leading up to wildlife crossings. Provide cover to shield the entrance to each wildlife crossing from the road while maintaining visibility through the crossing.
- Construct wildlife crossings at a sufficient size to allow light to be visible on the other side of the crossing; i.e. animals should be able to see through the structure to the other side.
- Develop a monitoring system for all major wildlife crossing in order to document crossing usage and to collect data that can be used for other similar projects. Identify necessary funds for the monitoring system.
- Orient wildlife undercrossings so that they are perpendicular to the road in order to reduce the overall length of the crossing and to minimize costs. This will also help improve visibility from one side of the crossing to the other.
- In areas with divided independent roads, extend wildlife crossings under or over each road, and the area between the roads will be fenced to control wildlife movement between the two. These areas should be vegetated so they serve as a safe haven for wildlife utilizing the crossings.
- Construct raised berms on wildlife overcrossings that extend the length of the crossing. Use three berms; one on each edge of the crossing structure, and one through the middle of the structure – to create artificial ridges and valleys.
- Vegetate wildlife overcrossings with a range of vegetation, including grasses, shrubs, and evergreen or deciduous trees. Include deadfall such as recycled Christmas trees or other materials that will provide temporary shelter for small animals until more permanent

Cross-section of road showing wildlife crossings.



vegetation can be established.

- Add vegetated jump-outs similar to those used in Banff National Park wherever continuous fencing is required. Jump-outs provide opportunities for wildlife trapped within the road corridor to escape and return to habitat areas. Jump-outs are to be placed at intervals not to exceed 1 mile, and should be placed adjacent to bridge structures.
- Use natural bottoms for all culverts utilized for wildlife and stream crossings. "Floor" material to be chosen with respect to adjacent natural conditions and to the intended use of the crossing in question.
- Develop major wildlife undercrossings so they are of sufficient size for passage of bears and ungulates.
- Protect surrounding habitat leading up to crossings from noise, road dust, and headlights to the extent possible by use of earth berms and plantings.

Wildlife Fencing:

The purpose of wildlife fencing is to control movement of wildlife. The fencing is intended to restrict animal movement across the road and to funnel wildlife toward crossing structures.



Fencing located in and around existing vegetative cover in order to minimize visual impact of the fencing.

- Use 8' high page mill fencing to guide wildlife toward crossing structures.
- Implement fencing along both sides of the road where US 93 crosses through areas of existing habitat, restored habitat, and/or areas where there is frequent movement of wildlife. End fencing in an area that deters wildlife, such as a bridge structure, a topographic feature such as a steep change in grade, or a populated area. Fencing should not end in an area that is good habitat for wildlife.
- In areas designated for continuous fencing, use cattle guards to allow driveways and roads to connect with US 93. The exact location and length of fencing to be determined during the design phase.
- In areas where individual wildlife crossings are located, locate fencing at both ends of the crossing in a wing pattern to guide wildlife into a crossing. Length of each side of fencing in the wing pattern varies depending upon specific site conditions, but an approximate length 150' is suggested. The exact location and length of fencing to be determined during the design phase.
- When there is a cross-sectional change in grade, locate fencing on the downhill side so that drivers and passengers have an unobstructed view of the surrounding landscape.
- Where possible, locate fencing in and around existing vegetative cover in order to minimize visual impact of the fencing.
- Construct fencing in two

